



**ARCADIA
ELECTRIC UTILITY**
City of Arcadia

05-GF-113
(210)

*tdt
PSC*

Tim Putz
115 South Jackson
Arcadia, WI 54612
Phone: (608) 323-7347
Fax: (608) 323-7858

January 7, 2003

Mr. Scot Cullen, Chief Electric Engineer
Public Service Commission
610 N. Whitney Way
P.O. Box 7854
Madison, WI 53707-7854

RECEIVED

Electric Division

1-8 A 10:35
PUBLIC SERVICE

RE: In the Matter of Filing Reporting Requirements for Appropriate Inspection and Maintenance, PSC Rule 113.0607(6)

Dear Mr. Cullen:

Enclosed for filing are 3 copies of Arcadia's report to the commission, submitted every two years, showing compliance with its Preventative Maintenance Plan.

Very truly yours,

Tim Putz
Superintendent, Electric

TWO YEAR REPORT DOCUMENTING COMPLIANCE WITH THE PREVENTATIVE MAINTENANCE PLAN

Arcadia Municipal Electric Utility

**FILING DEADLINE
FEBRUARY 1, 2003**

January 8, 2003

Tim Putz

115 South Jackson

Arcadia, WI

608-323-7623

aeutjp@triwest.net

RECEIVED

JAN 10 2003

Electric Division

This report format was prepared by the MEUW work group for PSC Rule 113.0607 for use by the 82 municipal electric utilities in Wisconsin and endorsed by PSC staff as meeting the requirements of Rule PSC 113.0607.

I Reporting Requirements: PSC 113.0607(6) states;

Each utility shall provide a periodic report to the commission showing compliance with its Preventative Maintenance Plan. The report shall include a list of inspected circuits and facilities, the condition of facilities according to established rating criteria, schedules established and success at meeting the established schedules.

II Inspection Schedule and Methods:

SCHEDULE:	MONTHLY	ANNUAL	EVERY 5 YEARS
Transmission ($\geq 69\text{Kv}$)		X	X
Substations	X	X	
Distribution (OH & UG)			X

Note, Arcadia has no transmission lines.

METHODS: Five criteria groups will be used to complete the inspection of all facilities.

1. **IR** – infrared thermography used to find poor electrical connections and/or oil flow problems in equipment.
2. **RFI** - Radio Frequency Interference, a byproduct of loose hardware and connections, is checked using a Micro Tech interference locator.
3. **SI** – structural integrity of all supporting hardware including poles, crossarms, insulators, structures, bases, foundations, buildings, etc.
4. **Clearance** – refers to proper spacing of conductors from other objects, trees and conductors.
5. **EC** – equipment condition on non-structural components such as circuit breakers, transformers, regulators, reclosers, relays, batteries, capacitors, etc.

Distribution facilities will be inspected by substation circuits on a 5 year cycle such that the entire system will be inspected every 5 years. Inspector instructions for inspecting all facilities and forms are included in the plan.

III Condition Rating Criteria

This criterion, as listed below, establishes the condition of a facility and also determines the repair schedule to correct deficiencies .

- 0) Good condition
- 1) Good condition but aging
- 2) Non-critical maintenance required – normally repair within 12 months
- 3) Priority maintenance required – normally repair within 90 days
- 4) Urgent maintenance required – report immediately to the utility and repair normally within 1 week

IV Corrective Action Schedule

The rating criteria as listed above determine the corrective action schedule.

V Record Keeping

All inspection forms and records will be retained for a minimum of 10 years. The inspection form contains all of the required critical information i.e. inspection dates, condition rating, schedule for repair and date of repair completion.

VI Reporting Requirements

A report and summary of this plan's progress will be submitted every two years with the first report due to the Commission by February 1, 2003. The report will consist of a cover letter documenting the percent of inspections achieved compared to the schedule and the percent of maintenance achieved within the scheduled time allowance.

VII Inspected Circuits and Facilities/ Note, AEU has One Substation

Circuit and Description		Circuit and Description	
12 KV	Pellet	5 KV	Mill
12 KV	Creamery	5 KV	North West
12 KV	West	5 KV	Hospital
12 KV	Ashley Plant 6		

Arcadia has what we call a peaking generation plant that is operated at least on a monthly basis and whenever Dairyland Power Dispatches us for contractual reasons. AEU does daily, monthly, and yearly inspections, based on need and insurance recommendations. These inspections for the most part are very carefully documented. Our generation plant consists of 6 units with a maximum capacity of 15 Megawatts.

VIII Scheduling Goals Established and Success of Meeting the Criteria:

Arcadia wanted to inspect and do all of the upgrades from the inspection list on at least one of our seven circuits per year. In the year 2002 we inspected and corrected all of the creamery circuit overhead, and part of the pellet circuit overhead. The reason for only overhead inspections is that 80% of our underground has had new jacketed cable installed within the last 10 years and most, later than that. Some of this is because of voltage conversions. One other thing we might add is that we infrared heat scan our entire system every three years, and 2003 is the scheduled year and will be incorporated in the underground inspections. We will be doing a significant amount of pole changouts with the pellet circuit, and I fear with our other older 4160-volt circuits as well. Some other goals that we

accomplished that were not on the inspection lists were to convert several older trans closures to new three phase pad mount tubs and to convert a 300 foot stretch of three phase underground to new overhead because of problems we have had with lightning taking out fuses.

Please find copies of our substation and overhead inspection sheets. Thanks

IX Facility condition – rating criteria:

The amount of outages that we in Arcadia experience is very low. The type of customers that we have demand that we operate on a no outage mind set and we take that very seriously. We feel that our system is in very good shape from our substation to our generation plant and throughout our distribution system. One thing that is hard for us to keep up with is the pole changouts but we continue to work on that.

Any questions please call.

A handwritten signature in black ink, appearing to read "Tim Putz". The signature is stylized with a large, looped "P" and a cursive "T".

Tim Putz
Arcadia Municipal
608-323-7347

Date 3-1-02 Inspected by Sara Cht Creamery

over →
over →

Added 30" + 30" + 30" on guy side only

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	-----

BREAKERS & RECLOSEURES IN SUB AND PLANT

[illegible]

	12 KV	60 KV	GENERAL	OIL	INDICATING	TEST	TEST	PELLET	CREAMER	ASHLEY	WEST	NORTH	NEW SWITCHGEAR ROOM IN PLANT		
	BUSINGS & ARRESTORS	BUSINGS & ARRESTORS	FENCE CONDITION	LEAKS	LAMPS WORKING	COOLING FANS	BATTERIES BIRMINGHAM	PEAK AMPS	PEAK AMPS	PEAK AMPS	PEAK AMPS	STATION SERVICE	#GEN 12KV OPER	#GEN 12KV OPER	SERVICE OPER
DATE	9-3-08	Ck	Ck	Ck	Ck	Ck	8-1-08	105	180	157	170		99931	23	99972
10-1-02	OK	OK	OK	OK	OK	OK	8	85	143	152	187	"	2299973	27	99977
11-1-02	OK	OK	OK	OK	OK	OK	11-1-08	114	153	157	168	"	2299973	27	99977

[illegible]